Case 3526

Salmo formosanus Jordan & Oshima, 1919 (currently *Oncorhynchus formosanus*) (Pisces, SALMONIDAE, SALMONINAE): proposed conservation of the specific name

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the specific name *Salmo formosanus* Jordan & Oshima, 1919 (currently *Oncorhynchus formosanus*) for an endemic landlocked salmon in Taiwan. The older name *Salmo saramao* Jordan & Oshima in Oshima, 1919 is a senior subjective synonym of *S. formosanus*, but has not been catalogued or used since it was described. The suppression of *S. saramao* is therefore proposed to conserve the name *S. formosanus*.

Keywords. Nomenclature; taxonomy; SALMONIDAE; *Oncorhynchus formosanus*; *Oncorhynchus saramao*; salmon; Taiwan.

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1. On 18 October 1917, Takeo Aoki received a freshwater salmon specimen (33.9 cm TL, preserved with salt) from Saramao [Lishan], upstream of Taiko River [Tachia R.], Taiwan. He reported this finding and gave a detailed description for the specimen (Aoki, 1917a, b, c). However, no scientific name was provided.

2. Jordan & Oshima in Oshima (June 1919, p. 14) described *Salmo saramao* based on two specimens [syntypes], the mature salt-preserved specimen received by Takeo Aoki and a juvenile (14.8 cm TL, SU 23054) raised at Saramao police station in Musha (or Musya, Wushe), Taiwan. Jordan & Oshima (November 1919, p. 122) described *Salmo formosanus* based on the same salt-preserved specimen [holotype] received by Aoki. In the later publications, however, only the name *formosanus* was used while *saramao* was ignored.

3. A search for the possible types and type localities of both species revealed that the salt-preserved specimen [i.e. syntype of *saramao* and holotype of *formosanus*] had been lost and the juvenile specimen [i.e. syntype of *saramao*] was now deposited in the California Academy of Sciences (SU 23054).

4. Oshima (1934) reassigned *Salmo formosanus* to *Oncorhynchus*. Subsequently, Oshima (1936, p.1) considered *Oncorhynchus formosanus* to be a junior synonym of *Oncorhynchus masou* (Brevoort, 1856).

5. Behnke (1959) was evidently not aware of the existence of *S. saramao* and the type status of the SU specimen he examined (incorrectly cited as SU 23059 instead of SU 23054) and considered that *O. formosanus* (cited as *O. formosanum*) was a valid species. Subsequently, Behnke et al. (1962) examined five additional specimens collected from Sukairan Stream (CAS 85233) and suggested that there might be up to 3 species of freshwater salmon in Taiwan.

6. Numachi et al. (1990), Gwo et al. (2008), Chang et al. (2009), Gwo & Hsu (2010), Hsu & Gwo (2010) and Hsu et al. (2010) studied the genetics of the *O. masou* species complex and suggested that *O. formosanus* was one of four valid subspecies of *O. masou*, whereas the other three subspecies were endemic in Japan.

7. All current authors agree that there is only one native freshwater salmon species in Taiwan, cited first as *O. masou formosanus* by Watanabe & Lin (1985) and later as *O. formosanus* by Kottelat (1996) and Nakabo (2009). It is listed as *Oncorhynchus masou formosanus* (Jordan & Oshima, 1919) *in FishBase* (http://www.fishbase.org).

8. *Oncorhynchus formosanus* had been placed in the category 'critically endangered' in the IUCN Red List of Threatened Species (Kottelat, 1996).

9. Although the senior synonym *Salmo saramao* has not been used since it was proposed in 1919, this does not meet the requirements Article 23.9.1.1 of the Code for a nomen oblitum. However, the junior synonym has been used as the valid name for the subspecies *O. masou formosanus* or the valid species *O. formosanus* in at least 50 works published by more than 20 authors in the last 50 years.

10. Because the junior synonym has been used to represent the endemic landlocked salmon in Taiwan by all official documents and scientific publications for nearly one century while the senior synonym has been ignored since it was established, we proposed to retain the usage of *Salmo formosanus* by suppression of the name *Salmo saramao*.

11. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary power to suppress the name *saramao* Jordan & Oshima in Oshima, 1919, as published in the binomen *Salmo saramao*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official List of Specific Names in Zoology the name *formosanus* Jordan & Oshima, 1919, as published in the binomen *Salmo formosanus*;

(3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *saramao* Jordan & Oshima in Oshima, 1919 as suppressed in (1) above.

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).